

CLAIMS

1 1. A computer-implemented method for facilitating restructuring of at least some
2 software components in a collection of software components, comprising:

3 identifying at least some predetermined characteristics in at least some of the
4 software components in the collection;

5 based on the identified predetermined characteristics, listing at least some of the
6 software components in a ranked order representative of the ease or difficulty of
7 restructuring the components.

1 2. The method of Claim 1, wherein the predetermined characteristics include
2 programming constructs.

1 3. The method of Claim 2, wherein the software components are restructured for
2 use in a wide area network.

1 4. The method of Claim 2, wherein at least some of the programming constructs
2 are assigned respective weights representative of a relative ease or difficulty of restructuring,
3 the list being ordered based at least partially on the weights of identified programming
4 constructs.

1 5. The method of Claim 4, wherein the programming constructs are selected from
2 the group including: Terminal I/O constructs, External Flow Transfer constructs, Data I/O
3 constructs, and Computational constructs.

1 6. The method of Claim 5, wherein the Terminal I/O constructs are assigned a
2 highest weight, the Computational constructs are assigned a lowest weight, and the External
3 Flow Transfer constructs and Data I/O constructs are assigned weights therebetween.

1 7. The method of Claim 5, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 8. The method of Claim 5, wherein the Terminal I/O constructs are selected from
2 the group including: EXEC CICS GDS RECEIVE, ACCEPT, DISPLAY, EXEC CICS
3 HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE MAP, EXEC CICS
4 RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC CICS SEND MAP
5 MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS CREATE TERMINAL,
6 EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE TERMINAL, and EXEC CICS
7 SET TERMINAL.

1 9. The method of Claim 5, wherein the External Control Flow Transfer constructs
2 are selected from the group including: SORT, STOP, EXEC CICS ABEND, EXEC CICS
3 DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT, EXEC CICS SUSPEND,

PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE ABORT, EXEC CICS SET
UOW, EXEC CICS EXTRACT TCPIP, and CALL.

10. The method of Claim 5, wherein the Data I/O constructs are selected from the
group including: EXEC CICS DELETEQ TD, OPEN, READ, EXEC CICS DELETEQ TS,
EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEQ TD, EXEC
CICS WRITEQ TS, READ, WRITE, PUT, and GET.

11. The method of Claim 1, wherein the predetermined characteristics are selected
from the group including: constructs that include transactions with an associated terminal
identification, constructs that include any screen input or output, routines that use variables
that are not defined within the scope of a related compilation unit, and constructs that use a
common work area (CWA), compile units that are the target of CALL commands, exit
controls (XCTL), communication area (COMMAREA) Linkage CICS, compile units that do
not reference variables outside the scope of a related compilation unit, and compile units that
contain calls to message queuing (MQ) services.

12. The method of Claim 1, wherein the predetermined characteristics include at
least one inbound call or invocation.

13. The method of Claim 1, wherein the predetermined characteristics include at
least one leaf routine.

1 /14. A computer system, comprising:
2 a legacy collection of software components;
3 a wide area computer network site; and
4 an ordered list of at least some of the software components, the list indicating
5 the relative ease of restructuring the components for use on the wide area computer
6 network site.

1 15. The system of Claim 14, wherein the list is generated by a method comprising
2 the acts of:
3 identifying at least some predetermined characteristics in at least some of the software
4 components in the legacy collection;
5 based on identified predetermined characteristics, listing at least some of the software
6 components in a ranked order representative of the ease or difficulty of restructuring the
7 components for use in the wide area computer network.

1 16. The system of Claim 15, wherein the predetermined characteristics include
2 programming constructs.

1 17. The system of Claim 15, wherein the wide area computer network is the World
2 Wide Web.

1 18. The system of Claim 16, wherein at least some of the programming constructs
2 are assigned respective weights representative of a relative ease or difficulty of restructuring,
3 the list being ordered based at least partially on the weights of identified programming
4 constructs.

1 19. The system of Claim 18, wherein the programming constructs are selected from
2 the group including: Terminal I/O constructs, External Flow Transfer constructs, Data I/O
3 constructs, and Computational constructs.

1 20. The system of Claim 19, wherein the Terminal I/O constructs are assigned the
2 highest weight, the Computational constructs are assigned to the lowest weight, and the
3 External Flow Transfer constructs and Data I/O constructs are assigned weights therebetween.

1 21. The system of Claim 20, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 22. The system of Claim 20, wherein the Terminal I/O constructs are selected from
2 the group including: EXEC CICS GDS RECEIVE, ACCEPT, DISPLAY, EXEC CICS
3 HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE MAP, EXEC CICS
4 RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC CICS SEND MAP
5 MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS CREATE TERMINAL,

EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE TERMINAL, and EXEC CICS SET TERMINAL.

23. The system of Claim 20, wherein the External Control Flow Transfer constructs are selected from the group including: SORT, STOP, EXEC CICS ABEND, EXEC CICS DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT, EXEC CICS SUSPEND, EXEC CICS PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE ABORT, EXEC CICS SET UOW, EXEC CICS EXTRACT TCPIP, and CALL.

24. The system of Claim 20, wherein the Data I/O constructs are selected from the group including: EXEC CICS DELETEDQ TD, OPEN, READ, EXEC CICS DELETEDQ TS, EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEDQ TD, and EXEC CICS WRITEDQ TS, READ, WRITE, PUT, and GET.

25. The system of Claim 15, wherein the predetermined characteristics are selected from the group including: constructs that include transactions with an associated terminal identification, constructs that include any screen input or output, routines that use variables that are not defined within the scope of a related compilation unit, and constructs that use a common work area (CWA), compile units that are the target of CALL commands, exit controls (XCTL), communication area (COMMAREA) Linkage CICS, compile units that do not reference variables outside the scope of a related compilation unit, and compile units that contain calls to message queuing (MQ) services.

1 26. The system of Claim 15, wherein the predetermined characteristics include at
2 least one inbound call or invocation.

1 27. The system of Claim 15, wherein the predetermined characteristics include at
2 least one leaf routine.

1 /28. A computer program device, comprising:
2 a computer readable medium having a program of instructions thereon for
3 causing a computer to generate an ordered list of at least some software components in
4 a set of components, comprising:
5 logic means for identifying at least one predetermined characteristic in at least
6 some of the components; and
7 logic means for generating the ordered list based at least in part on the means
8 for identifying.

1 29. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one programming construct.

1 30. The computer program device of Claim 28, wherein the programming construct
2 is assigned a weight representative of a relative ease or difficulty of restructuring, the list
3 being ordered based at least partially on the weight of identified programming constructs.

1 31. The computer program device of Claim 30, wherein the programming construct
2 is selected from the group including: Terminal I/O constructs, External Flow Transfer
3 constructs, Data I/O constructs, and Computational constructs.

1 32. The computer program device of Claim 31, wherein the Terminal I/O
2 constructs are assigned the highest weight, the Computational constructs are assigned to the
3 lowest weight, and the External Flow Transfer constructs and Data I/O constructs are assigned
4 weights therebetween.

1 33. The computer program device of Claim 32, further comprising the act of:
2 altering the weights of the constructs based on the actual use of the constructs.

1 34. The computer program device of Claim 31, wherein the Terminal I/O
2 constructs are selected from the group including: EXEC CICS GDS RECEIVE, ACCEPT,
3 DISPLAY, EXEC CICS HANDLE AID, EXEC CICS RECEIVE, EXEC CICS RECEIVE
4 MAP, EXEC CICS RECEIVE MAP MAPPING DEV, EXEC CICS SEND MAP, EXEC
5 CICS SEND MAP MAPPING DEV, EXEC CICS ACQUIRE TERMINAL, EXEC CICS
6 CREATE TERMINAL, EXEC CICS DISCARD TERMINAL, EXEC CICS INQUIRE
7 TERMINAL, and EXEC CICS SET TERMINAL.

1 35. The computer program device of Claim 31, wherein the External Control Flow
2 Transfer constructs are selected from the group including: SORT, STOP, EXEC CICS
3 ABEND, EXEC CICS DUMP, EXEC CICS CHANGE TASK, EXEC CICS CONNECT,
4 EXEC CICS SUSPEND, PERFORM, EXEC CICS ISSUE ABEND, EXEC CICS ISSUE
5 ABORT, EXEC CICS SET UOW, EXEC CICS EXTRACT TCPIP, and CALL.

1 36. The computer program device of Claim 31, wherein the Data I/O constructs are
2 selected from the group including: EXEC CICS DELETEDQ TD, OPEN, READ, EXEC CICS
3 DELETEDQ TS, EXEC CICS READQ TD, EXEC CICS READQ TS, EXEC CICS WRITEDQ
4 TD, and EXEC CICS WRITEDQ TS, READ, WRITE, PUT, and GET.

1 37. The computer program device of Claim 28, wherein the predetermined
2 characteristic is selected from the group including: constructs that include transactions with
3 an associated terminal identification, constructs that include any screen input or output,
4 routines that use variables that are not defined within the scope of a related compilation unit,
5 and constructs that use a common work area (CWA), compile units that are the target of
6 CALL commands, exit controls (XCTL), communication area (COMMAREA) Linkage CICS,
7 compile units that do not reference variables outside the scope of a related compilation unit,
8 and compile units that contain calls to modified quantization (MQ) services.

1 38. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one inbound call or invocation.

1 39. The computer program device of Claim 28, wherein the predetermined
2 characteristic includes at least one leaf routine.

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